CLAIMS

1. An information transmitting apparatus for use in a first network, designed to transmit information via a second network to an information receiving apparatus incorporated in a third network, characterized by comprising band-reserving means for reserving a band for the second network; generating means for generating a mapping table showing the address of the information receiving apparatus; and transmitting means for transmitting information by referring to the mapping table generated by the generating means.

2. An information transmitting apparatus according to claim 1, characterized in that the generating means generates a mapping table showing the channel number of the first network, the address of the second network and the channel number of the third network, which correspond to one another.

3. An information transmitting apparatus according to claim 2, characterized in that the first and third networks are IEEE1394 serial-data bus networks.

4. An information transmitting apparatus according to claim 1, characterized by further comprising receiving means for receiving video information input, and GUI-generating means for generating a GUI, synthesizing the GUI with the video information received by the receiving means and outputting a combination of the GUI and the video information.

5. A method of transmitting information in an apparatus for use in a first network, designed to transmit information via a second network to an information receiving

apparatus incorporated in a third network, characterized by comprising: a band-reserving step of reserving a band for the second network; a generating step of generating a mapping table showing the address of the information-receiving apparatus, and a transmitting step of transmitting information by referring to the mapping table generated in the generating step.

6.   A recording medium recording a program for use in a first network, designed to perform a process of transmitting information via a second network to an information receiving apparatus incorporated in a third network, characterized in that said program can be executed by a computer and includes: a band-reserving step of reserving a band for the second network; a generating step of generating a mapping table showing the address of the information-receiving apparatus, and a transmitting step of transmitting information by referring to the mapping table generated in the generating step.

7.   An information receiving apparatus for use in a first network, designed to receive information via a second network from an information transmitting apparatus incorporated in a third network, characterized by comprising generating means for generating a mapping table showing the address of the information transmitting apparatus; and transfer means for transferring information by referring to the mapping table generated by the generating means.

8.   An information receiving apparatus according to claim 7, characterized in that the generating means generates a mapping table showing the channel number of the first network, the address of the second network and the port number of the third network,

which correspond to one another.

9. An information receiving apparatus according to claim 8, characterized in that the first and third networks are IEEE1394 serial-data bus networks.

10. An information receiving apparatus according to claim 7, characterized by further comprising receiving means for receiving video information input, and means for generating a GUI, synthesizing the GUI with the video information received by the receiving means and outputting a combination of the GUI and the video information.

11. A method of receiving information in an information receiving apparatus used in a first network, designed to receive information via a second network from an information transmitting apparatus incorporated in a third network, characterized by comprising; a generating step of generating a mapping table showing the address of the information transmitting apparatus; and a step of transferring information by referring to the mapping table generated in the generating step.

12. A recording medium recording a program for use in a first network, designed to perform a process of receiving information via a second network from an information transmitting apparatus incorporated in a third network, characterized in that said program can be executed by a computer and includes: a generating step of generating a mapping table showing the address of the information transmitting apparatus; and a step of transferring information by referring to the mapping table generated in the generating step.

13. An information transmitting/receiving apparatus for transmitting and receiving

information through a plurality of networks, characterized by comprising: reserving means for reserving bands for the networks; generating means for generating a mapping table showing the address of a destination; communicating means for communicating information by referring to the mapping table generated by the generating means; receiving means for receiving video information input; and GUI-generating means for generating a GUI, synthesizing the GUI with the video information received by the receiving means and outputting a combination of the GUI and the video information.

14.   A method of transmitting and receiving information in an information transmitting/receiving apparatus for transmitting and receiving information through a plurality of networks, characterized by comprising: a reserving step of reserving bands for the networks; a generating step of generating a mapping table showing the address of a destination; a communicating step of communicating information by referring to the mapping table generated in the generating step; a receiving step of receiving video information input; and a GUI-generating step of generating a GUI, synthesizing the GUI with the video information received in the receiving step and outputting a combination of the GUI and the video information.

15.   A recording medium recording a program for use in an information transmitting/receiving apparatus for transmitting and receiving information through a plurality of networks, characterized in that said program can be executed by a computer and includes: a reserving step of reserving bands for the networks; a

generating step of generating a mapping table showing the address of a destination; a communicating step of communicating information by referring to the mapping table generated by the generating means; a receiving step of receiving video information input; and a GUI-generating step of generating a GUI, synthesizing the GUI with the video information received in the receiving step and outputting a combination of the GUI and the video information.

16. An information receiving apparatus for use in a second network which operates in accordance with a second clock signal, designed to receive a packet transmitted from an information transmitting apparatus incorporated in a first network which operates in accordance with a first clock signal, characterized by comprising: receiving means for receiving the packet transmitted; detecting means for detecting a lag between the first clock signal and second signal used in the first network and the second network, respectively, on the basis of the packet received by the receiving means; changing means for changing time information contained in the packet, in accordance with the lag detected by the detecting means; and output means for outputting the packet received by the receiving means, in accordance with the time information changed by the changing means.

17. An information receiving apparatus according to claim 16, characterized in that storage means is further provided for storing the packet received by the receiving means, and the detecting means detects the lag between the first and second clock signals, on the basis of a size of the packet stored in the storage means.

18. An information receiving apparatus according to claim 17, characterized in that the storage means includes FIFO.

19. An information receiving apparatus according to claim 17, characterized by further comprising storage control means for storing an empty packet into the storage means in accordance with detection results of the detecting means.

20. A method of receiving information in an information receiving apparatus used in a second network which operates in accordance with a second clock signal, designed to receive a packet transmitted from an information transmitting apparatus incorporated in a first network which operates in accordance with a first clock signal, characterized by comprising: a receiving step of receiving the packet transmitted; a detecting step of detecting a lag between the first clock signal and second signal used in the first network and the second network, respectively, on the basis of the packet received in the receiving step; a changing step of changing time information contained in the packet, in accordance with the lag detected in the detecting step; and an outputting step of outputting the packet received in the receiving step, in accordance with the time information changed in the changing step.

21. A recording medium recording a program designed to perform a process in a second network which receives a packet transmitted from a first network operating in accordance with a first clock signal and which operates in accordance with a second clock signal asynchronous with the first clock signal, characterized in that said program can be executed by a computer and includes: a reserving step of receiving the packet

transmitted; a receiving step of receiving the packet transmitted; a detecting step of detecting a lag between the first clock signal and second signal used in the first network and the second network, respectively, on the basis of the packet received in the receiving step; a changing step of changing time information contained in the packet, in accordance with the lag detected in the detecting step; and an outputting step of outputting the packet received in the receiving step, in accordance with the time information changed in the changing step.